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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
1771	5

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/870,517	Applicant(s) BUSCHKA ET AL.	
	Examiner Elizabeth M Cole	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. With regard to the Supplemental IDS filed 7/18/01, a copy of the IDS is not found in the application file and is not listed on the contents.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 7-10, 29, 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ruffo et al, U.S. Patent No. 4,018,646. Ruffo discloses a material comprising a mixture of cellulosic fibers and reinforcing fibers . The reinforcing fibers may have a length within the claimed range. The material may be used as absorbent material. The reinforcing fibers may comprise natural ad synthetic fibers including cotton, polyester, polyolefin, rayon, nylon, etc. See col. 10, lines 12-64; col. 21, lines 40-61. The material may be integrated by needling the fibers to interlock them without the use of any bonding agents. See col. 13, lines 34-41. The material may comprise different proportions of pulp to reinforcing textile fibers, such as 50-50 or 60-40. See col. 12, lines 31-40. With regard to the

limitation that the material is obtained by directly dry-laying the cellulose fibers on the newly formed gauze of textile fibers, the claims are drawn to a product. The material of Ruffo et al appears to be the same as the claimed invention although it may not be produced in exactly the same way. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward

with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al, U.S. Patent No. 3,984,898 in view of Ruffo et al, U.S. Patent No. 4,018,646. Matsumura et al discloses a material comprising a mixture of cellulosic short fibers and reinforcing fibers. The relative proportions of the fibers are within the claimed range. The lengths of the reinforcing fibers are within the claimed range. Matsumura et al also discloses a method of making a material comprising a mixture of cellulosic short fibers and reinforcing comprising the steps of forming the reinforcing fibers into a gauze on a wire and then forming the cellulosic fibers into a web and

integrating them with the reinforcing fibers to form a fabric. The reinforcing fibers may comprise rayon fibers. Matsumura et al differs from the claimed invention because Matsumura et al does not teach the claimed dtex of the fibers and does not teach employing the material as an absorbent material after defibering the material and without defibering the material. With regard to defibering, it is conventional in the art of absorbent articles to employ absorbent structures which have been defibered and which have not been defibered and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the material with or without defibering it. With regard to the claimed dtex, since the dtex of fibers is related to the strength, softness, etc. of the fibers and the resulting products formed from the fibers, it would have been obvious to one of ordinary skill in the art to have selected fibers having a dtex which would produce a product having sufficient strength, softness, etc. With regard to the relative proportions of reinforcing fibers and cellulosic fibers, since the reinforcing fibers serve to strengthen the material, it would have been obvious to one of ordinary skill in the art to have selected the relative proportions of the reinforcing fibers in order to produce a material having the desired strength. Matsumura et al also differ from the claimed invention because Matsumura et al does not teach that bonding occurs in the absence of a bonding agent, but instead employs a binder. Ruffo et al teaches that employing a bonding agent and mechanically interlocking the fibers are both known and equivalent methods of bonding fibrous webs comprising cellulosic fibers and reinforcing fibers. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have bonded the fiber web of Matsumura et al by

mechanically interlocking the web rather than by using a binder, since Ruffo et al teaches that the two bonding methods are known to be equivalents in the art.

7. Claims 4-6, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruffo et al, U.S. Patent No. 4,018,646. Ruffo discloses a material comprising a mixture of cellulosic fibers and reinforcing fibers . The reinforcing fibers may have a length within the claimed range. The material may be used as absorbent material. The reinforcing fibers may comprise natural ad synthetic fibers including cotton, polyester, polyolefin, rayon, nylon, etc.

Ruffo et al differs from the claimed invention because Ruffo et al does not disclose the fiber size in terms of dtex and does not teach the claimed proportions of reinforcing fibers. With regard to the dtex of the fibers, since Ruffo does teach that the fibers should have a denier of 0.75 to 6 denier, it appears that this would overlap the claimed range. Additionally, since the dtex of fibers is related to the strength, softness, etc. of the fibers and the resulting products formed from the fibers, it would have been obvious to one of ordinary skill in the art to have selected fibers having a dtex which would produce a product having sufficient strength, softness, etc. With regard to the relative proportions of reinforcing fibers and cellulosic fibers, since the reinforcing fibers serve to strengthen the material, it would have been obvious to one of ordinary skill in the art to have selected the relative proportions of the reinforcing fibers in order to produce a material having the desired strength.

The material may be integrated by needling the fibers to interlock them without the use of any bonding agents. See col. 13, lines 34-41. With regard to the limitation that the material is

obtained by directly dry-laying the cellulose fibers on the newly formed gauze of textile fibers, the claims are drawn to a product. The material of Ruffo et al appears to be the same as the claimed invention although it may not be produced in exactly the same way. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

8. Applicant's arguments filed 2/19/03 have been fully considered but they are not persuasive. Applicant argues that Ruffo et al does not teach that mechanically interlocking and employing a bonding agent are both known and equivalent methods of bonding fibrous webs comprising cellulosic fibers and reinforcing fibers. However, Ruffo states: " The nonwoven webs obtained by the process of the present invention may be post-treated by any suitable conventional technique, e.g. mechanical or chemical, to bond the web and provide the required strength and coherency characteristics for a given product. The particular type of bonding technique chosen will depend on various factors well-known to those skilled in the art, e.g. the type of fibers, the particular use of the products, etc." See col. 12, line 61 - col. 13, line 1. Thus, Ruffo clearly teaches that mechanically entangling fibers or using a bonding agent were known alternative methods of bonding. While Applicant asserts that Ruffo teaches only that particular bonding processes are suitable for particular types of products, Ruffo, as set forth above, clearly states that both ways of

bonding nonwoven fabrics comprising cellulosic and reinforcing fibers were well known, equivalent and conventional. To say that the two methods of bonding are equivalent is not to say that the two methods are the same. Obviously, bonding with a bonding agent is different than mechanically entangling fibers, such as by hydroentangling or needling. Thus, the choice of a particular bonding method would depend upon the end use of the product. However, the two bonding methods are recognized by Ruffo as being equivalent means of bonding. Further, while Ruffo may give examples of particular applications in which particular bonding methods may be desirable, these examples do not preclude the art combination set forth in the rejection. Matsumura discloses a nonwoven fabric which is suitable for use in hygiene and sanitary products. Ruffo teaches that soft fiber webs may be bonded by needling. This teaching of Ruffo would be directly applicable to Matsumura because softness is a desirable feature in sanitary products, and because the presence of additional components such as binders can be undesirable in such products, because they can make a product stiff and also potentially cause allergic or irritated reactions to users of the products, whereas needling the fibers would eliminate the need for an additional binder, thus avoiding the expensive, potential sensitivity and potential stiffness associated with chemical binders.

Applicant argues that needling would have a negative effect on the Matsumura mat because it would alter the macrostructure of the perforated layers and thus harm the absorbency of the layers. However, needling is known in the art to enhance absorbency by forming channels

through which moisture can be transported. Thus, needling the Matsumura material would not harm the absorbency and would potentially enhance it.

With regard to the product by process claims, Applicant argues that there is nothing on the record to show that the material of Ruffo is the same as the claimed material. However, the action clearly sets forth the basis for the presumption that the Ruffo material is the same as the claimed invention. See paragraph 3 of the office action of 11/15/02 as well as paragraph 3 of the instant action which sets forth ample support for the contention that the materials of Ruffo and the claimed invention appear to be the same material. With regard to the argument that Ruffo distinguishes between soft materials and soft and absorbent materials, Ruffo teaches that nonwovens comprising the same fibers as the claimed invention can be bonded by mechanical means such as needling or hydroentangling. Ruffo does not teach or suggest that these processes destroy the absorbency of the web and in fact, the would not do so, and this would be well known to one of ordinary skill in the art. Further, Applicant has not addressed hydroentangling, which is an alternative mechanical method of entangling fibers disclosed by Ruffo as suitable for bonding the fabric which uses no bonding agents. Finally, the instant claims do not recite a particular degree of absorbency. The "soft" fabric of Ruffo comprises the same materials and therefore would be absorbent. The process differences set forth by Applicant are not persuasive with regard to these claims since the claims are drawn to the product.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.

Elizabeth M. Cole
Primary Examiner
Art Unit 1771